aiwa

COMPACT DISC STEREO SYSTEM

NSX-DP55

OPERATING INSTRUCTIONS

En (English)

R·D·S EON

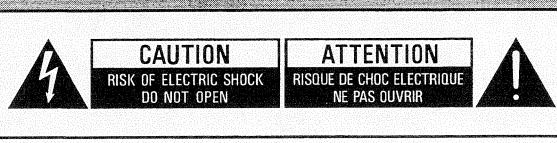
COMPACT disc DIGITAL AUDIO

8A-NFV-916-01
000115AMI-U-9

EZ

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



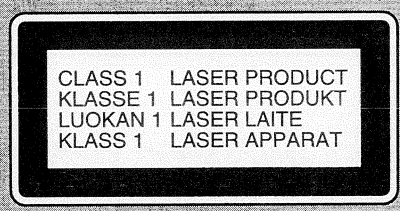
CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This compact disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the exterior.



CAUTION!

Invisible laser radiation when open and inter locks defeated. Avoid exposure to beam.

ADVARSEL!
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laitteen käyttäminen muulla kuin tässä käyttöohjeessaa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteiylle.

VARNING!
Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsätta för osnylig laser-strålning, som överskrider gränsen för laserklass 1.

NOTE

AIWA CO. LTD. - JAPAN - DECLARES UNDER ITS OWN RESPONSIBILITY THAT THE PRODUCT DESCRIBED IN THIS MANUAL IS IN COMPLIANCE WITH THE DIRECTIVES OF D.M 28.8.95 No. 548, ACCORDING TO THE STIPULATIONS OF PARAGRAPH 3 OF ATTACHMENT A OF D.M. 25.6.85 AND PARAGRAPH 3 OF ATTACHMENT 1 OF D.M. 27.8.87 (REGULATIONS REGARDING FREQUENCIES).

The above information is only for Italy.

PRECAUTIONS

Read the Operating Instructions carefully and completely before operating the unit. Be sure to keep the Operating Instructions for future reference. All warnings and cautions in the Operating Instructions and on the unit should be strictly followed, as well as the safety suggestions below.

Installation

1 **Water and moisture** — Do not use this unit near water, such as near a bath, sink, swimming pool, or the like.
2 **Heat** — Do not use this unit near sources of heat, including heating vents, stoves, or other appliances that generate heat. It also should not be placed in temperatures less than 5°C (41°F) or greater than 35°C (95°F).
3 **Mounting surface** — Place the unit on a flat, even surface.
4 **Ventilation** — The unit should be situated with adequate space around it so that proper heat ventilation is assured. Allow 10 cm (4 in.) clearance from the rear and the top of the unit, and 5 cm (2 in.) from each side.
- Do not place the unit on a bed, rug, or similar surface that may block the ventilation openings.
- Do not install the unit in a bookcase, cabinet, or airtight rack where ventilation may be impeded.

5 **Objects and liquid entry** — Take care that objects or liquids do not get inside the unit through the ventilation openings.
6 **Carts and stands** — When placed or mounted on a stand or cart, the unit should be moved with care.
Quick stops, excessive force, and uneven surfaces may cause the unit or cart to overturn or fall.
7 **Condensation** — Moisture may form on the CD pickup lens when:
- The unit is moved from a cold spot to a warm spot.
- The heating system has just been turned on.
- The unit is used in a very humid room.
- The unit is cooled by an air conditioner.

When this unit has condensation inside, it may not function normally. Should this occur, leave the unit for a few hours, then try to operate again.

8 **Wall or ceiling mounting** — The unit should not be mounted on a wall or ceiling, unless specified in the Operating Instructions.

Electric Power

1 **Power sources** — Connect this unit only to power sources specified in the Operating Instructions, and as marked on the unit.
2 **AC power cord**
- When disconnecting the AC power cord, pull it out by the AC power plug. Do not pull the cord itself.
- Never handle the AC power plug with wet hands, as this could result in fire or shock.
- Power cords should be firmly secured to avoid being severely bent, pinched, or walked upon. Pay particular attention to the cord from the unit to the power socket.
- Avoid overloading power sockets and extension cords beyond their capacity, as this could result in fire or shock.

3 **When not in use** — Unplug the AC power plug from the power socket if the unit will not be used for several months or more. When the cord is plugged in, a small amount of current continues to flow to the unit, even when the power is turned off.

Maintenance

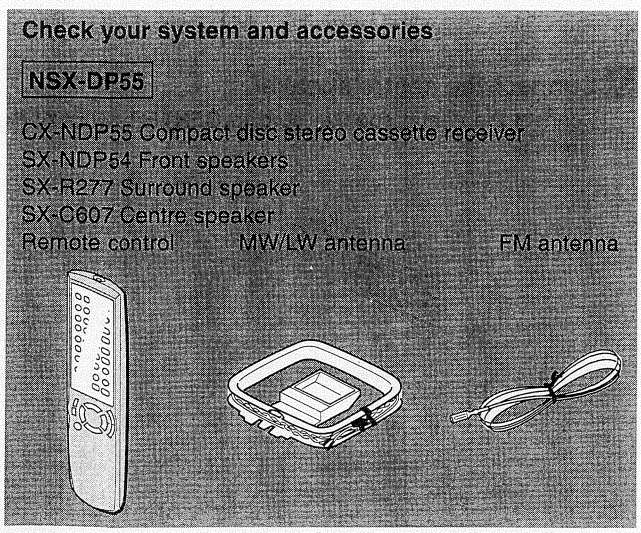
Clean the unit only as recommended in the Operating Instructions.

Damage Requiring Service

Have the units serviced by a qualified service technician if:

- The AC power cord or plug has been damaged.
- Foreign objects or liquid have got inside the unit.
- The unit has been exposed to rain or water.
- The unit does not seem to operate normally.
- The unit exhibits a marked change in performance.
- The unit has been dropped, or the cabinet has been damaged.

DO NOT ATTEMPT TO SERVICE THE UNIT YOURSELF.



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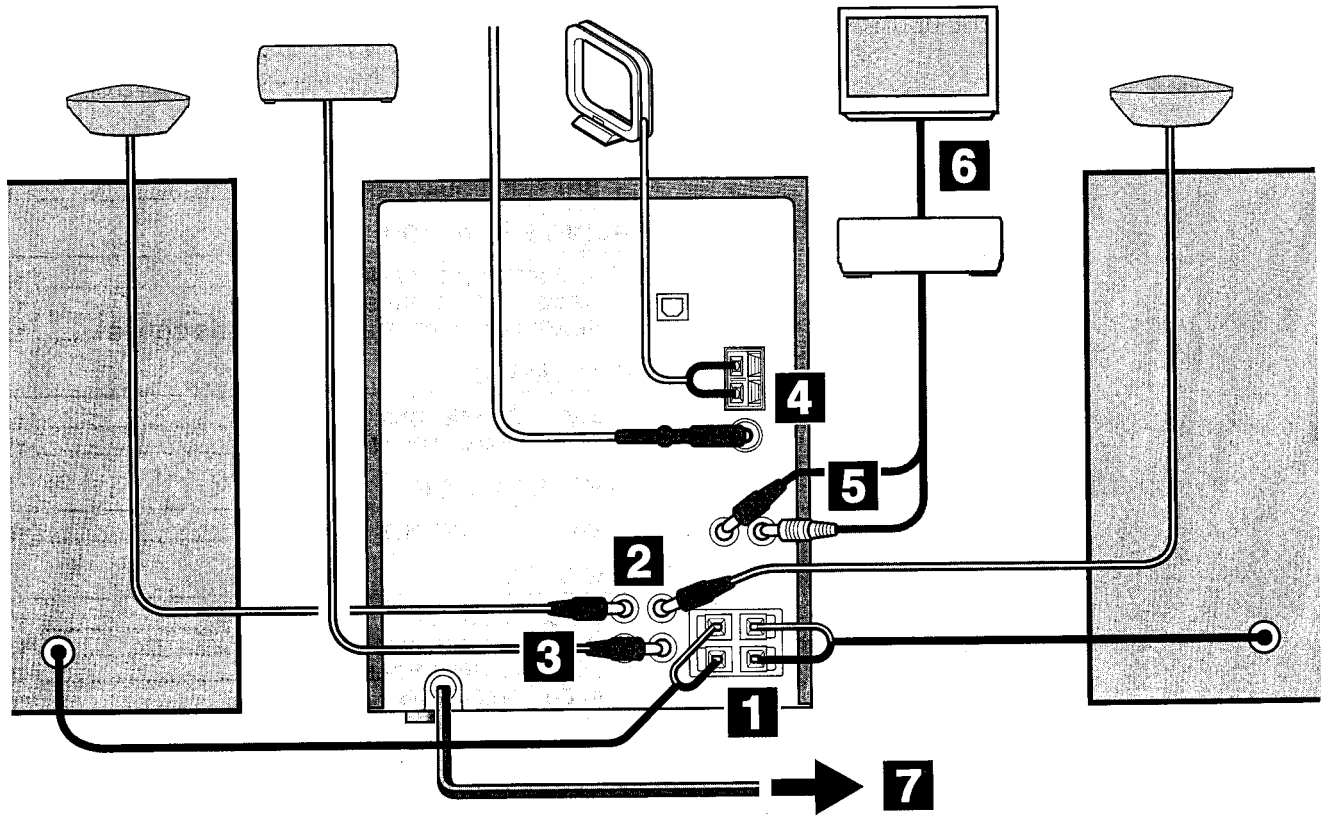
En

CONNECTIONS

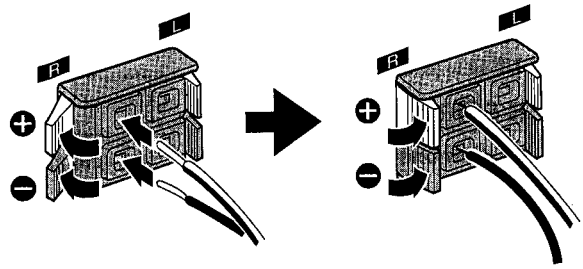
Before connecting the AC cord
The rated voltage of your unit shown on the rear panel is 230 V AC. Check that the rated voltage matches your local voltage.

IMPORTANT
Connect the speakers, antennas, and all optional equipment first. Then connect the AC cord.



1 Connect the front speakers.

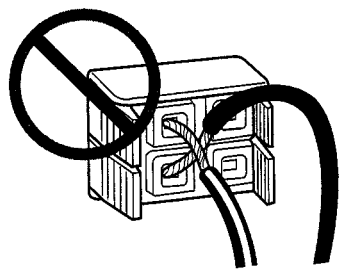
The speaker placed on the right side of the unit facing you is "the right speaker" and another one is "the left speaker".



The cords with white stripes should be connected to ⊕ terminals and the other cords to ⊖ terminals.

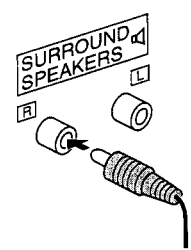
NOTE

- Be sure to connect the speaker cords correctly. Improper connections can cause short circuits in **SPEAKERS** terminals.



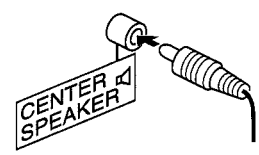
2 Connect the surround speakers.

Connect the surround speaker cords to **SURROUND SPEAKERS** terminals.



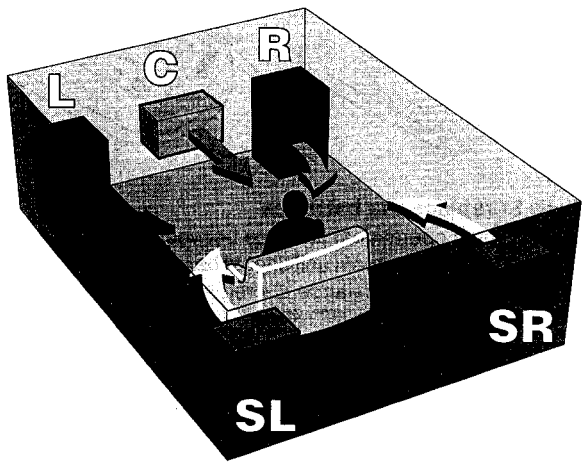
3 Connect the centre speaker.

Connect the centre speaker cord to **CENTER SPEAKER** terminal.



POSITIONING THE SPEAKERS

To achieve the optimum effects obtainable with the DOLBY PRO LOGIC system, it is important to position the speakers properly. Refer to the following illustration to find out the best location in your room.

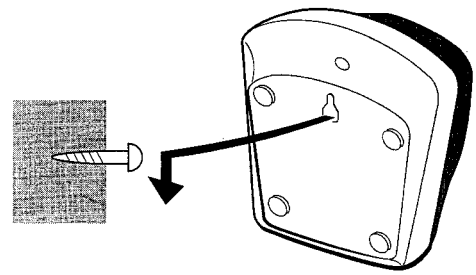


L&R: Front speakers
C: Center speaker
Position in the centre of the two front speakers. In addition, position on or below the TV set, if connecting a TV set to the unit.
SL&SR: Surround speakers
Place the surround speakers directly to the side of or slightly behind the listening area. Align them horizontally, about 1 meter (3.2 feet) above ear height.

NOTE

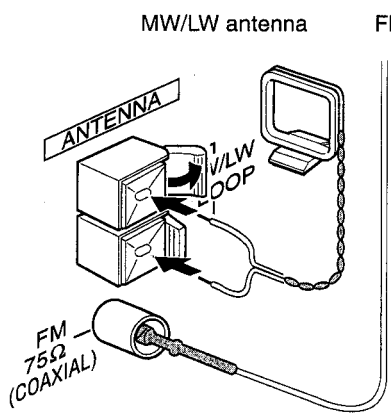
- No sound is heard from the centre and surround speakers when the DOLBY PRO LOGIC is set to off.
- The centre speaker sounds when the DOLBY PRO LOGIC is set to on.

To mount the surround speakers on the wall
Mount each speaker on a spot that can hold its weight.



4 Connect the supplied antennas.

Connect the FM antenna to **FM 75 Ω** terminal and the MW/LW antenna to **MW/LW LOOP** terminals.



To position the antennas
FM unipolar antenna:
Extend fully and position for the best possible reception.
This antenna is of an instant type, so the use of an outdoor antenna is recommended.
MW/LW antenna:
Position and rotate this antenna to find the best possible reception.

5 Connect the video equipment.

Connect **VIDEO/AUX** jack of this unit to the audio output jack of the video equipment with an optional audio connecting cord.

6 Connect the Television to the video equipment.

Refer to the Operating Instructions of the connected equipment for details.

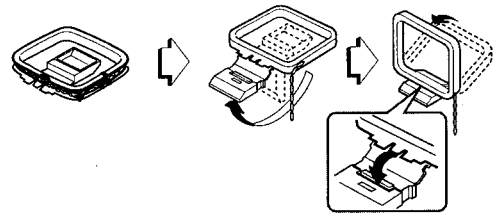
7 Connect the AC cord to an AC outlet.

The DEMO will begin when the AC cord is plugged into an AC outlet for the first time. To deactivate the DEMO, set the clock.

NOTE

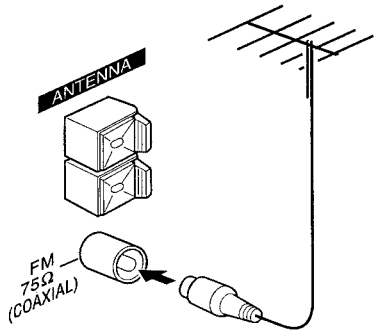
- Do not leave objects generating magnetism, such as credit cards, near the speakers, as these objects may be damaged.
- Do not bring the FM antenna near metal objects or curtain rails.
- Do not bring the MW/LW antenna near other optional equipment, the stereo system itself, the AC cord or speaker cords, since noise will be picked up.
- Do not unwind the MW/LW antenna wire.

To stand the MW/LW antenna on a surface
Fix the claw to the slot.



CONNECTING AN OUTDOOR ANTENNA

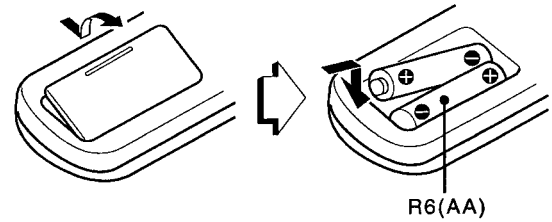
For better FM reception, use of an outdoor antenna is recommended.
Connect the outdoor antenna to **FM 75** Ω terminal.



To connect other optional equipment → page 28.

REMOTE CONTROL

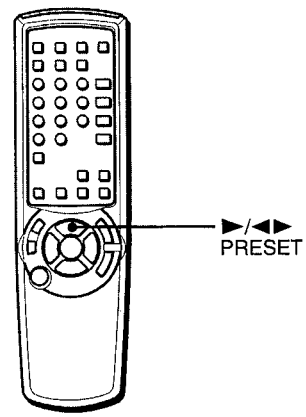
Inserting batteries
Detach the battery cover on the rear of the remote control and insert two R6 (size AA) batteries.



When to replace the batteries
The maximum operational distance between the remote control and the sensor on the main unit should be approximately 5 meters (16 feet). When this distance decreases, replace the batteries with new ones.

Using the remote control
The instructions in this manual refer mainly to the buttons on the main unit. Buttons on the remote control with the same names as those on the main unit can be used as well.

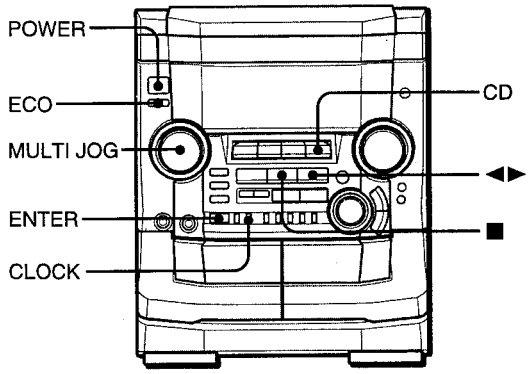
►/◄► PRESET on the remote control
The function is the same as that of ◄► on the main unit.



NOTE

- If the remote control is not going to be used for an extended period of time, remove the batteries to prevent possible electrolyte leakage.
- The remote control may not operate correctly when:
  - The line of sight between the remote control and the remote sensor inside the display window is exposed to intense light, such as direct sunlight
  - Other remote controls are used nearby (those of a television, etc.)

BEFORE OPERATION



To turn the power on
Press one of the function buttons (**TAPE**, **TUNER**, **VIDEO/AUX**, **CD**). Playback of the inserted disc or tape begins, or the previously tuned station is received (Direct Play Function).
POWER is also available.

NOTE
When the power is turned on, the disc compartment may open and close to reset the unit.

To turn the power off
Press **POWER**.

DEMO(Demonstration)

When the AC cord is plugged into an AC outlet for the first time after purchase, the DEMO will begin in the display. When the power is turned on, the DEMO will end. When the power is turned off, the DEMO will begin again.
When the clock is set, the DEMO will not begin even if the power is turned off.

To deactivate or activate DEMO
Press **CLOCK**, and clock is displayed in place of the DEMO.
Press ◄► to activate.
(For more about the DEMO, see page 27)

SETTING POWER ECONOMIZING MODE

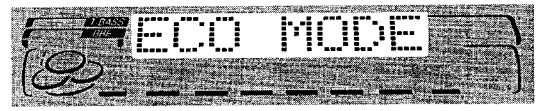
When you set power economizing mode to "ECO ON" or "ECO AUTO",the unit reduces power consumption by conducting four ECO operations as follows.

ECO ON
- The unit (all the illumination of the display and the buttons) blacks out when the power is turned off. Only the red indicator lights up.
- If DIMMER (1-3) is selected, the illumination of the display and the buttons brighten for 10 seconds only when you press a button, or turn **VOLUME** or **MULTI JOG**.
- The display dimmer mode is set to the dimmest, the button illumination lights off, and the volume is set to the minimum (0) when the unit turns on by timer recording.

ECO AUTO
- In addition to the three operations of ECO ON, the unit automatically turns itself off if you do not operate it and the sound source is mute for 10 minutes.

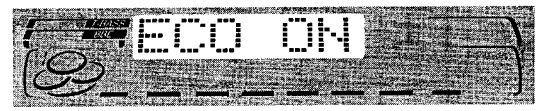
ECO OFF
The power economizing mode does not function.

***1* Press ECO.**
"ECO MODE" will be displayed.



***2* Press ENTER within 4 seconds.**
The current power-economizing mode status will be displayed.

***3* Turn MULTI JOG within 4 seconds to select one of the power-economizing modes.**
Example : When "ECO ON" is selected.



***4* Press ENTER within 4 seconds.**

NOTE
If the clock is not set, the unit does not black out.
Instead, the DEMO will begin when the power is turned off.

DIMMER MODE

To change the display dimmer mode
1 Press **ECO** repeatedly until "DIM MODE" is displayed.
2 Within 4 seconds, press **ENTER**.
3 Within 4 seconds, turn **MULTI JOG** to select one of the dimmer modes changed cyclically as below.
4 Within 4 seconds, press **ENTER**.

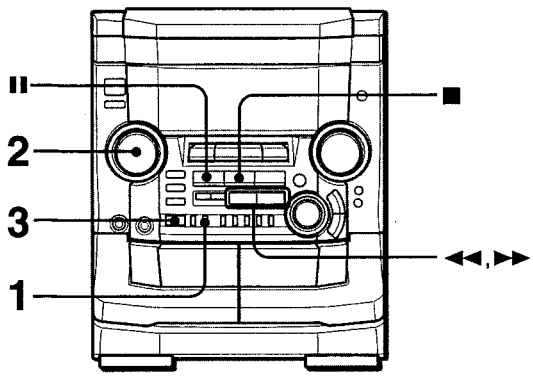
DIM-OFF ↔ DIMMER 1 ↔ DIMMER 2 ↔ DIMMER 3

"DIM-OFF" mode is the brightest and "DIMMER 3" mode is the dimmest. In "DIMMER 3" mode, the spectrum analyzer, the window of the unit top, and the button illumination light off in addition.

FLASH WINDOW

The window on the top of the unit lights up or flashes while the unit is being powered on.
To turn off the light of the top window, press ■ while pressing **CD**. To turn back on, repeat the above.

SETTING THE CLOCK



***1* Press CLOCK.**
The clock is displayed. (The ":" between the hours and minutes flashes.)

***2* Within 4 seconds, turn MULTI JOG to designate the hour and the minute.**
Turning **MULTI JOG** changes both the hour and the minute. ◄◄ or ►► is also available in place of **MULTI JOG**. Holding these buttons down will vary the time rapidly.

***3* Press ENTER or II.**
The clock starts from 00 seconds.

To restore an original clock setting
Press **CLOCK** before completing step 3 to restore the previous time setting. This cancels any new setting.

To view the clock when another display is in the display
Press **CLOCK**. The time is displayed for 4 seconds and then the original display reappears. However, the clock cannot be displayed during recording.

To switch to the 24-hour standard
Press the **CLOCK** and then press ■ within 4 seconds.
Repeat the same procedure to restore the 12-hour standard.

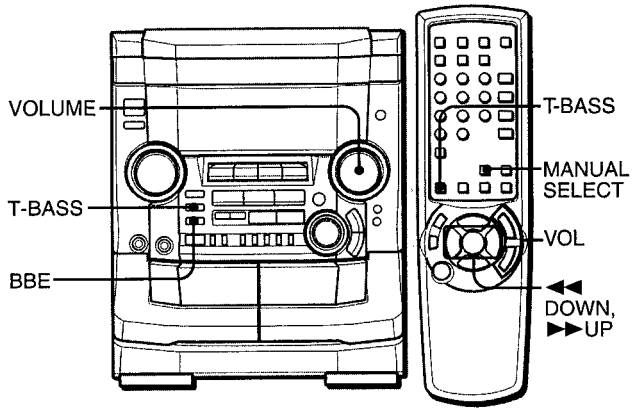
In the 12-hour standard, "AM 12:00" indicates midnight and "PM 12:00" indicates noon.

If the clock display flashes
If the display flashes when the clock is displayed, it indicates that the clock has stopped due to a power failure or the removal of the power cord. The current time needs to be reset.

NOTE

If the power-economizing mode (page 7) is on, the unit blacks out when the power is turned off. To view the clock, press **CLOCK** so that the time is displayed for 4 seconds.

AUDIO ADJUSTMENTS



VOLUME

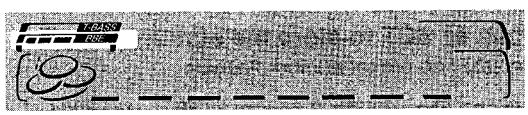
Turn VOLUME on the main unit, or press VOL on the remote control.
The volume level is displayed as a number from 0 to MAX (50). The volume level is automatically set to 20 when the power is turned off with the volume level set to 21 or more.

To change the left/right balance
Press **MANUAL SELECT** on the remote control. L/R is displayed for 2 seconds. Press **◄◄ DOWN** or **►► UP** on the remote control within these 2 seconds.
- The DOLBY PRO LOGIC front speakers level is also changed. (See page 21)

BBE SYSTEM

The BBE system enhances the clarity of high-frequency sound.

Press BBE.
Each time it is pressed, the level changes. Select one of the three levels, or the off position to suit your preference.



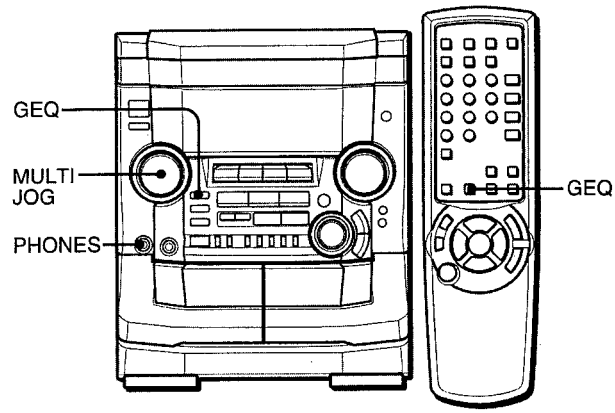
SUPER T-BASS SYSTEM

The T-BASS system enhances the realism of low-frequency sound.

Press T-BASS.
Each time it is pressed, the level changes. Select one of the three levels, or the off position to suit your preference.

NOTE
- Low frequency sound may be distorted when the T-BASS system is used for a disc or tape in which low frequency sound is originally emphasized. In this case, cancel the T-BASS system.
- When playing back a tape recorded with BBE, it is recommended that BBE be set to off to avoid distorted high frequency sound.

GRAPHIC EQUALIZER



This unit provides the following five different equalization curves.
ROCK: Powerful sound emphasizing treble and bass
POP: More presence in the vocals and midrange
LATIN: Accented higher frequencies for latin music.
CLASSIC: Enriched sound with heavy bass and fine treble.
JAZZ: Accented lower frequencies for jazz-type music

Press GEQ repeatedly, or press GEQ once and turn MULTI JOG within 4 seconds, to select one of the equalization curves.

GRAPHIC EQUALIZER

"GRAPHIC EQUALIZER" appears and the GEQ mode is displayed cyclically as follows.

ROCK → POP → LATIN → CLASSIC → JAZZ → GEQ OFF (cancel) → ROCK

* The GEQ mode can be displayed in reverse order if **MULTI JOG** is used.

To display the current GEQ mode
Press **GEQ**. The current mode is displayed for 4 seconds.

To cancel the selected mode
Press **GEQ** repeatedly, or press **GEQ** once and turn **MULTI JOG** within 4 seconds, to select "GEQ OFF".
"GRAPHIC EQUALIZER" disappears.

To select with the remote control
Press **GEQ** repeatedly. The GEQ mode is displayed cyclically as above.

Using the headphones
Connect headphones to the **PHONES** jack with a standard stereo plug (ø6.3 mm, 1/4 inch).
No sound is output from the speakers while the headphones are plugged in.

Sound adjustment during recording
The output volume and tone (except BBE) of the speakers or headphones are freely varied without affecting the recording.

PRESETTING STATIONS

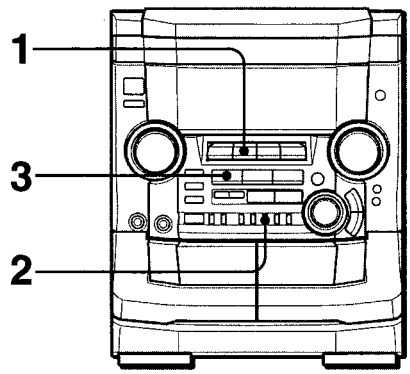
The unit can store a total of 32 preset stations. Presetting allows you to tune in to a station directly. Stations are assigned preset numbers, beginning from 1 in consecutive order for each band (FM, MW, LW).

Automatic presetting:
This unit has a function for reception of *[1]RDS (Radio Data System) and other stations.
FM RDS stations take priority over other FM stations if there are more than 32 receivable stations.

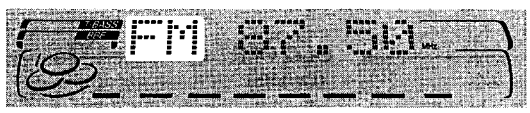
Manual presetting:
You can select stations to be preset from all the bands.

AUTOMATIC PRESETTING

The tuner scans through the receivable frequency range and stores stations automatically.

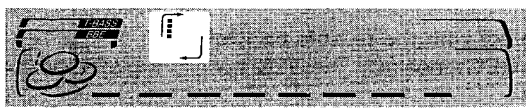


1 Press TUNER BAND.
FM is displayed.



2 Keep pressing RT for 4 seconds until AUTO PRESET is displayed.
II SET flashes for 4 seconds.

3 Press II SET while II flashes.
The tuner searches for a station, beginning with the FM band. When a tuned station is stored, the selected preset number flashes on the display.

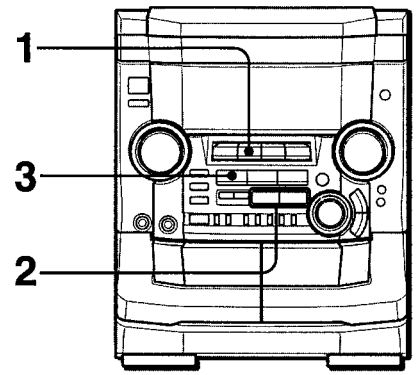


The search continues on the MW and LW bands if preset numbers are still available.
When automatic presetting has been completed, the display returns to the first preset station.

When the tuner detects *[2]identical RDS stations with alternative frequencies
Only the station with the stronger signal is stored.
Before storing an RDS station, the tuner checks first whether the same stations on the other frequencies are present, and stores the station with the best reception.

NOTE
When automatic presetting is done, all previously stored stations are cleared.

MANUAL PRESETTING

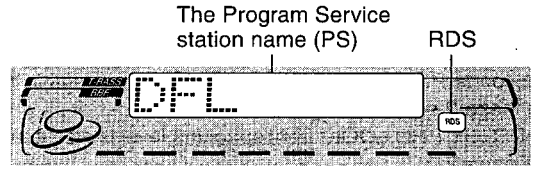


1 Press TUNER BAND repeatedly to select the band.

FM ⟶ MW ⟶ LW

2 Press ◀◀ DOWN or ▶▶ UP to select a station.
Each time the button is pressed, the frequency changes.

ⓐ When tuning in to an FM RDS station
After TUNE on the display goes out, the Program Service station name (*[3]PS) is displayed and RDS lights up.



ⓑ When tuning in to the other stations
After TUNE on the display goes out, the band is displayed.

• During FM stereo reception, ((◎)) lights.

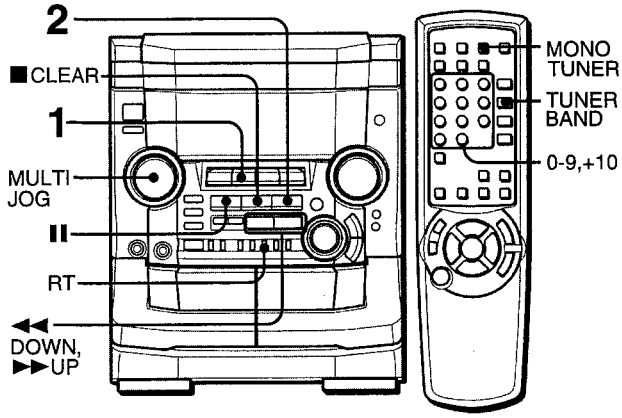
3 Press II SET to store the station.
The selected preset number flashes.

4 Repeat steps 1 to 3 to store the stations.
The next station will not be stored if a total of 32 preset stations for all the bands have already been stored.

To search for a station quickly with ◀◀ DOWN or ▶▶ UP (Auto Search)
Keep one of the buttons pressed until the tuner starts searching for a station. The search stops when the tuner tunes in to a station. To stop the Auto Search manually, press one of the buttons.
• The Auto Search may not stop at stations with very weak signals.

NOTE
"FULL" is displayed if you attempt to store more than 32 preset stations.

RECEPTION BY PRESET NUMBER



1 **Press TUNER BAND to select a band.**

2 **Press ◄► PRESET repeatedly or turn MULTI JOG.**
Each time the button is pressed, the next highest number is selected.

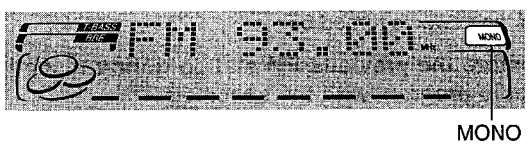
Selecting a preset number on the remote control
Press **TUNER BAND** to select a band. Then, press the numbered buttons to select a preset number.
Example:
To select preset number 20, press **+10**, **+10** and **0**.
To select preset number 15, press **+10** and **5**.

To clear a preset station
Select the preset number of the station to be cleared. Then, press **■ CLEAR**, and press **II SET** within 4 seconds.
The preset numbers of all stations in the band with higher numbers are also decreased by one.

To tune in to a station which is not preset
Press **TUNER BAND** to select a band, and press **◄◄ DOWN** or **►► UP** to select the station.

To play a tuned station when the power is off (Direct Play Function)
Press **TUNER BAND**. The power is turned on and the tuned station is played.

When an FM stereo broadcast contains noise
Press **MONO TUNER** on the remote control to display MONO.

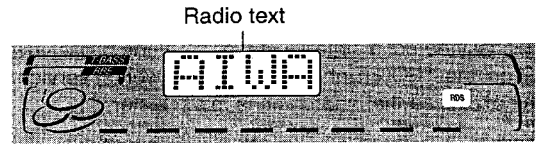


Noise is reduced, although reception is monaural.
To restore stereo reception, repeat the above so that the MONO indicator goes out.

NOTE

RDS functions may not work correctly if the RDS transmission data from the station contains too much interference or the reception signal is too weak.

To display radio text (*4RT) during RDS reception
When the tuned station is transmitting RT codes, text appears on the display when **RT** is pressed.
If the tuned station is not transmitting RT codes, "NO RT" is displayed when **RT** is pressed.



To return to the normal display, press **RT** again.

***1RDS**
Today many stations transmit so-called RDS (Radio Data System) codes that contain a variety of additional information along with regular sound signals.

***2Identical RDS stations with alternative frequencies (AF)**
This is a list of alternative frequencies that gives information on the various transmitters broadcasting the same program in the same reception area. It enables receivers equipped with memory to store the list, to reduce the time needed for switching to another transmitter.

***3Program service station name (PS)**
This is a name consisting of not more than 8 alphanumeric characters, which is displayed in order to inform listeners about the program service being broadcast by the radio station.
Example: BBC 1

Characters which can be displayed

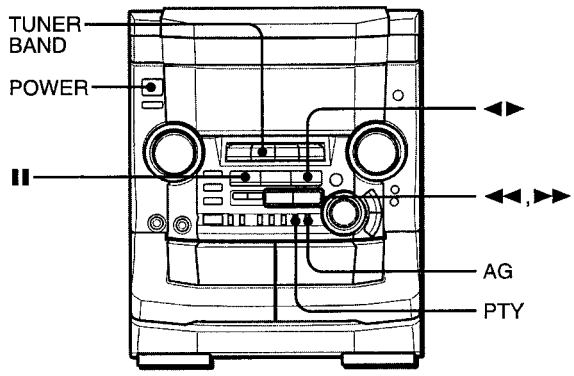
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0 1 2 3 4 5 6 7 8 9 < > ? " ' * @ − + / = [ ]

If a character transmitted by the broadcast is not applicable to receivers, a blank space is inserted.

***4Radiotext (RT)**
Information such as the cast list of a play or the title of a song is shown on the display.

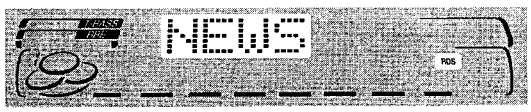
SEARCHING WITH THE HELP OF RDS CODES

Each RDS station identifies the type of program (*5PTY) which it is currently broadcasting. If you specify a PTY, the unit can automatically detect a suitable station from the preset stations. In addition, the *6EON (Enhanced Other Networks) service works in some areas, so that searching is much faster.



TO DISPLAY THE PTY

Press PTY once during RDS reception.



Programs are classified as follows:

TRAFFIC, NEWS, AFFAIRS (current affairs), INFO (information), SPORT, EDUCATE (education), DRAMA, CULTURE, SCIENCE, VARIED, POP M (pop music), ROCK M (rock music), EASY M (middle of the road music), LIGHT M (light classical), CLASSICS (serious classical), OTHER M (other music), WEATHER, FINANCE, CHILDREN (Children's programmes), SOCIAL (Social Affairs), RELIGION, PHONE IN, TRAVEL, LEISURE, JAZZ (Jazz Music), COUNTRY (Country Music), NATION M (National Music), OLDIES (Oldies Music), FOLK M (Folk Music), DOCUMENT (Documentary), TEST (Alarm Test), ALARM

NOTE

- If program type information is not being transmitted, NO PTY is displayed.
- If undefined program type information is being transmitted, UNDEFINE is displayed.
- The unit identifies TRAFFIC with one of the program types.

TO SEARCH FOR A SPECIFIED PTY

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ DOWN or ►► UP to select a program type.**

3 **Within 4 seconds, press PTY again.**
The search automatically checks every preset station. After identifying a suitable station, the station will be selected.

EON service for the PTY search
When EON service works to transmit PTY, a suitable station is detected without checking every preset station. When a station transmits EON information, it takes about 15 to 30 seconds for the unit to decode the EON information. After decoding the information, EON lights up on the display.

When a station is not found
NOT FOUND is displayed and the unit returns to the previous station.

When the TRAFFIC program type is selected
The unit searches for a station transmitting a *7TP code. However, the tuned station may not be broadcasting a traffic announcement currently. Wait for a while. The tuned station broadcasts traffic information regularly and a traffic announcement will be made.

EON SEARCH

During FM RDS reception, the unit switches to radio programs with the specified PTY automatically as soon as they begin.

1 **Press PTY.**
The program type of the currently tuned station is displayed.

2 **Within 4 seconds, press ◄◄ or ►► to select a program type.**

3 **Within 4 seconds, press II SET.**
"EON ON" is displayed for 3 seconds. Then, "EON" starts flashing and the unit enters EON search standby mode.
When a radio program with the specified PTY in another radio station begins, it interrupts the currently playing radio program and the radio program with the specified PTY is heard. At this time, "EON" flashes rapidly.
At the end of the radio program with the specified PTY, the previous FM radio station is restored.
- EON search standby mode is stored until it is cancelled even if the power is turned off.

To restore the previous FM station during reception of the radio program with the specified PTY
Press **◄► PRESET**.
At this time, EON search standby mode is cancelled.

To cancel EON search standby mode
Keep **PTY** pressed. (Do not release **PTY** yet.) "EON PTY" and the specified PTY are displayed alternately. At this time, press **II SET** with pressing **PTY**. "EON OFF" is displayed and EON search standby mode is cancelled.

NOTE

The EON search function does not work when:
- FM stations are not preset.
- The signals of stations with the specified PTY are weak.
- FM RDS is not received.

OTHER FUNCTION OF RDS CODES

Auto GEQ function

The equalization curve is switched automatically to match the music program type of an RDS station.

Press AG.

AG lights up.

To cancel, press it again.

GEQ matching PTY:

PTY	GEQ
POP M	POP
ROCK M	ROCK
LIGHT M	JAZZ
CLASSICS	CLASSIC
JAZZ	JAZZ
COUNTRY	POP
NATION M	POP
OLDIES	POP
FOLK M	JAZZ
Others	off

The selected GEQ can be changed to suit your preference by pressing **GEQ**. During this time, the Auto GEQ function is cancelled.

Clock-time (*8CT)

The CT function provides the unit with information about the local time. The CT function works whenever a CT station is received.

If you have not set the clock (the clock flashes on the display)

The current time can be set automatically by tuning in to an RDS station.

If no RDS station is preset, tune in to an RDS(CT) station manually by pressing ◄◄ **DOWN** or ►► **UP**.

If the clock does not agree with the broadcast time

An RDS signal will update the clock time on the hour every hour.

***5Program type identification (PTY)**

PTY allows selection of listening by one of 30 or more program types rather than by a station.

***6Enhanced other networks information (EON)**

EON information gives the receiver a cross reference to other stations and allows the receiver to switch from the currently tuned station to another RDS station.

***7Traffic program identification (TP)**

This is a code which informs the receiver that a tuned station regularly broadcasts traffic information.

***8Clock-time (CT)**

CT function provides an accurate clock signal which is self adjusting to time zones and seasonal time changes.

To change the MW tuning interval

The default setting of the MW tuning interval is 9 kHz/step. If you use the unit in an area where the frequency allocation system is 10 kHz/step, change the tuning interval as follows.

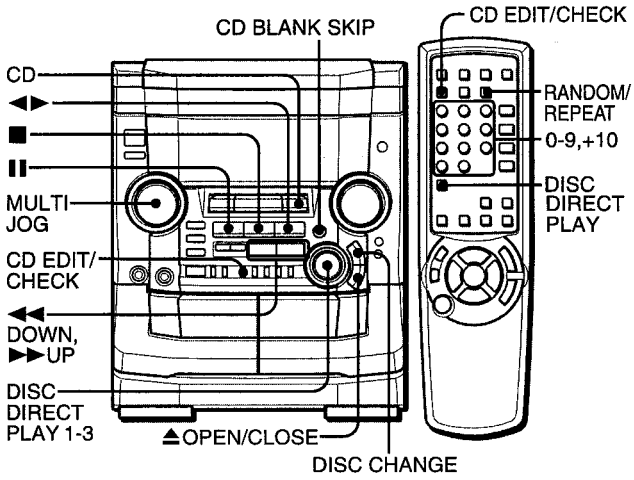
Press **POWER** while pressing **TUNER BAND**.

To reset the interval, repeat this procedure.

NOTE

When the MW tuning interval is changed, all preset stations are cleared. The preset stations have to be set again.

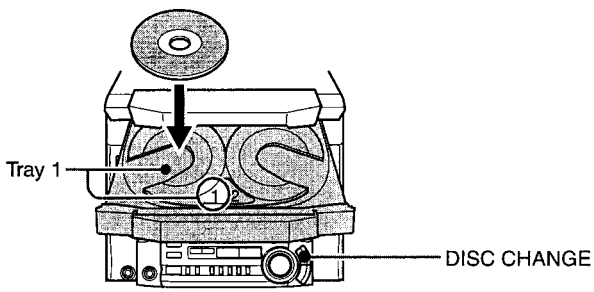
BASIC OPERATIONS

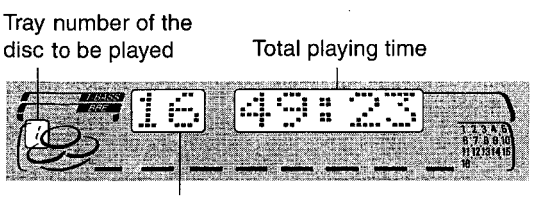


LOADING DISCS

Press CD, then press ≜ OPEN/CLOSE to open the disc compartment. Load disc(s) with the label side up.

To play one or two discs, place the discs on tray 1 and 2.
To play three discs, press **DISC CHANGE** to rotate the trays after placing two discs. Place the third disc on tray 3.
Close the disc compartment by pressing **≜ OPEN/CLOSE**.

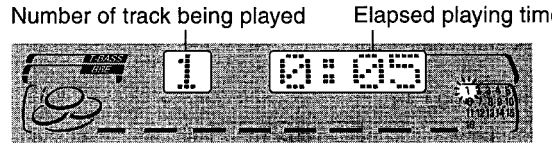




PLAYING DISCS

Load discs.

To play all discs in the disc compartment, press ◄►.
Play begins with the disc on tray 1.



To play one disc only, press DISC DIRECT PLAY 1-3.
The selected disc is played once.

To stop play, press ■.
To pause play, press II. To resume play, press again.
To search for a particular point during playback, keep ◄◄ or ►► pressed and release it at the desired point.
To skip to the beginning of a track during playback, press ◄◄ or ►► repeatedly or turn **MULTI JOG**.
To remove discs, press **≜ OPEN/CLOSE**.

To start play when the power is off (Direct Play Function)

Press **CD**. The power is turned on and play of the loaded disc(s) begins.
When **≜ OPEN/CLOSE** is pressed, the power is also turned on and the disc compartment is opened.

To check the remaining time

During play (except random play or programmed play), press **CD EDIT/CHECK**. The amount of time remaining until all tracks finish playing is displayed. To restore the playing time display, repeat the above.

Selecting a track with the remote control

1 Press **DISC DIRECT PLAY**, then press numbered buttons **1-3** within 3 seconds to select a disc.
2 Press numbered buttons **0-9** and **+10** to select a track.
Example:
To select the 25th track, press **+10**, **+10** and **5**.
To select the 10th track, press **+10** and **0**.
The selected track starts to play and continues to the end of that disc.

Replacing discs during play

While one disc is playing, the other discs can be replaced without interrupting play.
1 Press **DISC CHANGE**.
2 Remove the discs and replace with other discs.
3 Press **≜ OPEN/CLOSE** to close the disc compartment.

NOTE

- When loading an 8-cm (3-inch) disc, put it onto the inner circle of the tray.
- Do not place more than one compact disc on one disc tray.
- Do not tilt the unit with discs loaded. Doing so may cause malfunctions.
- Do not use irregular shape CDs (example: heart-shaped, octagonal ones). It may result in malfunctions.
- The unit may not play a CD-R/RW disc that is recorded on personal computers or some kinds of CD-R/RW recorders because of differences in recording platforms.
- Do not attach any seal or label to either side (the recordable side or the labeled side) of a CD-R/RW disc. It may cause malfunction.

RANDOM /REPEAT PLAY

Use the remote control.

RANDOM play
All the tracks on the selected disc or all the discs can be played randomly.

REPEAT play
A single disc or all the discs can be played repeatedly.

Press RANDOM/REPEAT.
Each time it is pressed, the function can be selected cyclically.
RANDOM play — RANDOM lights up on the display.
REPEAT play — ↻ lights up on the display.
RANDOM/REPEAT play — RANDOM and ↻ light up on the display.
Cancel — RANDOM and ↻ disappear from the display.

To play all discs, press ◄► to start play.
To play a single disc, press one of **DISC DIRECT PLAY 1-3** to start play.

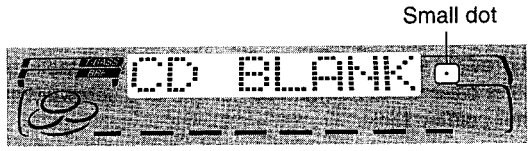
NOTE

During random play it is not possible to skip to the previously played track with ◄◄.

BLANK SKIP PLAY

The silent portions between tracks recorded on a CD can be skipped during playback.

1 Press CD BLANK SKIP.
"CD BLANK SKIP ON" is displayed and a small dot will appear in the display.



2 Press ◄► to start playback.
The silent portions between tracks will be skipped, and the sound will be played back without interruption. If a track fades out (ends with the sound gradually decreasing), the fadeout portion also will be skipped.

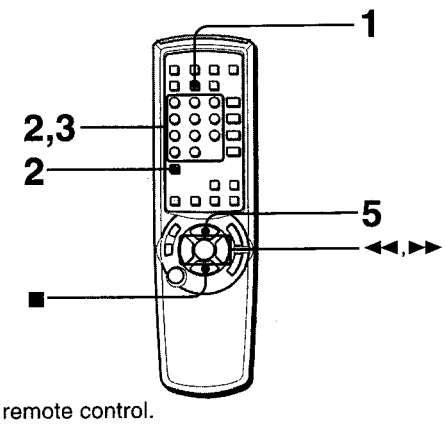
To return to normal playback
Press **CD BLANK SKIP** again, and the dot in the display will disappear.

NOTE

- There may be a case where BLANK SKIP PLAY does not function correctly.
- BLANK SKIP PLAY is automatically canceled when performing AI EDIT RECORDING (page 19), PROGRAMMED EDIT RECORDING (page 20), or recording during PROGRAMMED PLAY (page 15) or RANDOM PLAY (page 15).

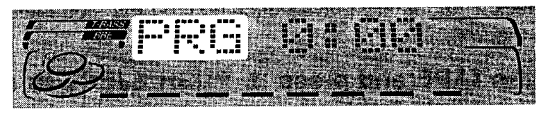
PROGRAMMED PLAY

Up to 30 tracks can be programmed from any of the inserted discs.



Use the remote control.

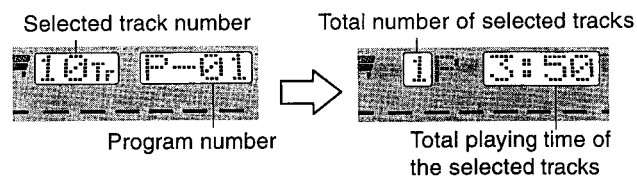
1 Press PRGM twice in stop mode.
"PRG" is displayed .



- When the **PRGM** is pressed once in step 1, the unit enters the KARAOKE PROGRAM (page 24).

2 Press DISC DIRECT PLAY, then press numbered buttons 1-3 within 3 seconds to select a disc.
Go to the next step when the tray stops rotating.

3 Press numbered buttons 0-9 and +10 to program a track.
Example:
To select the 25th track, press **+10**, **+10** and **5**.
To select the 10th track, press **+10** and **0**.



4 Repeat steps 2 and 3 to program other tracks.

5 Press ◄► to start play.

To check the program
Each time ◄◄ or ►► is pressed in stop mode, a disc number, track number, and program number will be displayed.

To clear the program
Press ■ **CLEAR** in stop mode.

To add tracks to the program
Repeat steps 2 and 3 in stop mode. The track will be programmed after the last track.

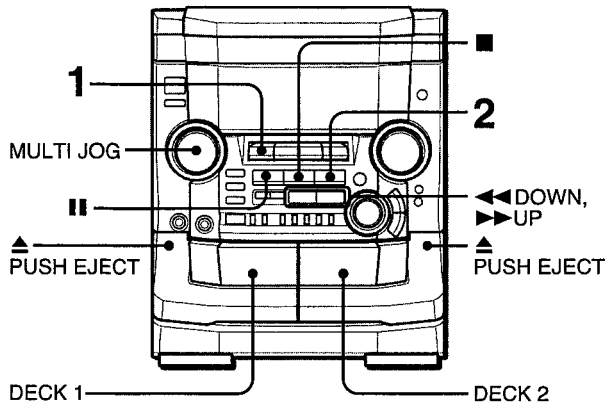
To change the programmed tracks
Clear the program and repeat all the steps again.

To play the programmed tracks repeatedly
After programming the tracks, press **RANDOM/REPEAT** repeatedly until ↻ appears on the display.

NOTE

- During programmed play, you cannot perform random play, check the remaining time, and select a disc or track. "Can't USE" is displayed if you attempt to select a track.
- "FULL" is displayed if you attempt to program more than 30 tracks.

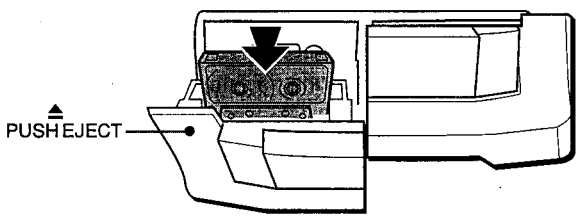
BASIC OPERATIONS



This unit is designed for optimal playback of Type I (normal) tapes.

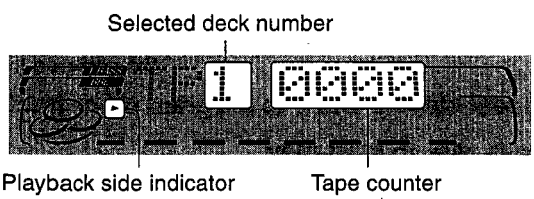
- On deck 1, tapes are alwayes played back on both sides. On deck 2, tapes are played back only on the side facing out from the unit.

1 Press TAPE and press ⏏ PUSH EJECT to open the cassette holder.



Insert a tape with the exposed side down. Push the cassette holder to close.

2 Press ◀▶ to start play.



▶: The front side is being played (forward).
◀: The back side is being played (reverse).

To select a playing deck
When tapes are loaded in both decks, press **TAPE** first to select a deck.
The selected deck number is displayed.

To stop play, press ■.
To pause play (deck 2 only), press II. To resume play, press again.
To change the playback side (deck 1 only), press ◀▶ in play or pause mode.
To fast forward or rewind, press ◀◀ or ▶▶. Then press ■ to stop the tape.

To start play when the power is off (Direct Play Function)
Press **TAPE**. The power is turned on and play of the inserted tape begins.

To set the tape counter to 0000
Press ■ **CLEAR** in stop mode.
The counter is also set to 0000 when the cassette holder is opened.

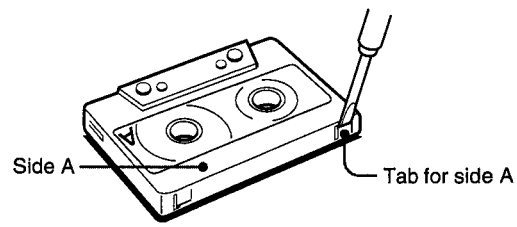
When tapes are loaded in both decks
After playback on deck 1 finishes, the tape in the deck 2 will start to play without interruption and will stop at the end of the tape. (Continuous play)

NOTE

Type II (High position) tapes can also be played back in this unit. When playing back a Type II tape, turn **MULTI JOG** to display "SOFT" in the display. This will set the optimum playback sound for Type II tapes. However, "SOFT" playback will be canceled if any graphic equalizer is selected (page 9), the unit is switched to a different audio source, the cassette holder is open, or when the power is turned off.

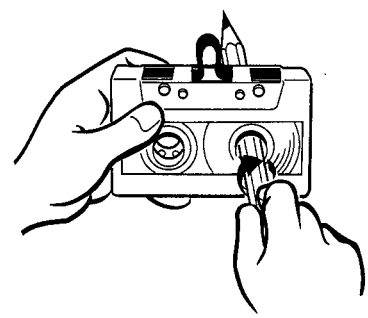
About cassette tapes

- **To prevent accidental erasure**, break off the plastic tabs on the cassette tape after recording with a screwdriver or other pointed tool.



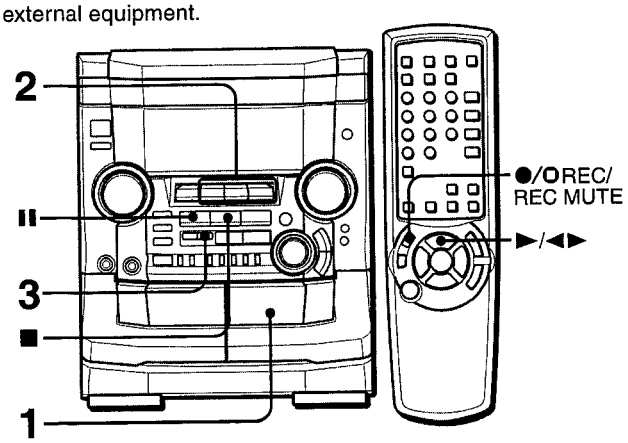
To record on the tape again, cover the tab openings with adhesive tape, etc.

- **120-minute or longer tapes** are extremely thin and easily deformed or damaged. They are not recommended.
- **Take up any slack in** the tape with a pencil or similar tool before use. Slack tape may break or jam in the mechanism.



BASIC RECORDING

This section explains how to record from the tuner, CD player, or external equipment.

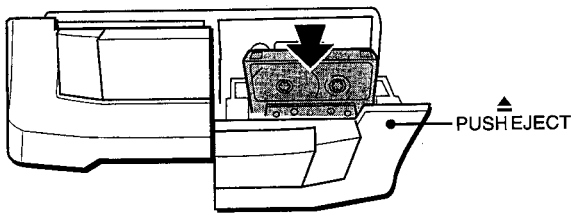


Preparation

- Use Type I (normal) tapes only.
- Set the tape to the point where recording will start.
- Note that recording is done on only one side of the tape.

1 Insert the tape to be recorded on into deck 2.

Insert the tape with the side to be recorded on first facing out from the unit.

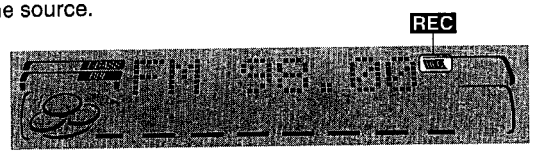


2 Press function (CD, TUNER or VIDEO/AUX) and prepare the source to be recorded.

To record from a CD, press **CD** and load the disc(s).
To record from a radio broadcast, press **TUNER** and tune in to a station.
To record from a connected source, press **VIDEO/AUX**.

3 Press ● REC/REC MUTE to start recording.

When recording from a connected source, start playback of the source.



When the selected function is CD, playback and recording start simultaneously.

To stop recording, press ■.
To pause recording, press II. (Applicable when the source is TUNER or VIDEO/AUX) To resume recording, press it again.

To start recording with the remote control
First press **●/O REC/REC MUTE**, and then press ►/◄► within 2 seconds.

Sound adjustment during recording
The output volume and tone (except BBE) of the speakers or headphones are freely varied without affecting of the recording.

INSERTING BLANK SPACES

Insertion of 4-second blank spaces enables you to activate the Music Sensor function. (Applicable when the source is TUNER or VIDEO/AUX.)

1 **Press ● REC/REC MUTE during recording or while in recording pause mode.**
REC on the display flashes for 4 seconds and 4-second blank space is made. Then, the deck enters the recording pause mode.
2 **Press II to resume recording.**

To insert a blank space of less than 4 seconds, press ● **REC/REC MUTE** again while REC is flashing.
To insert blank spaces of more than 4 seconds, after the deck enters recording pause mode, press ● **REC/REC MUTE** again. Each time the button is pressed, a 4-second blank space is added.

NOTE

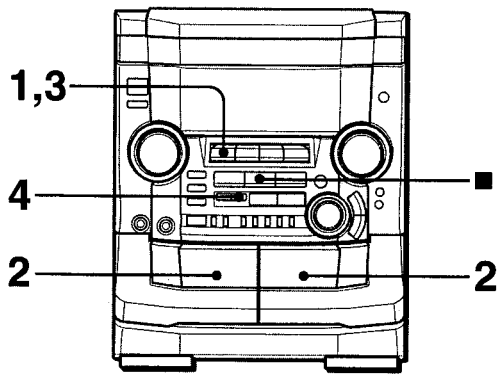
If squealing or beating sounds occur when recording an MW or LW broadcast, press **MONO TUNER** on the remote control while pressing **SHIFT** until small dot, and "BEAT 1" or "BEAT 2" is displayed, so as to eliminate the noise.

NOTE

- When recording an externally connected source via the VIDEO/AUX jacks, the small dot near the ◴ lights up continuously in the display if the input level is too high.
  In this case, stop recording and adjust the input level until the dot lights intermittently (page 28).
- "Can't REC" is displayed if you attempt to record on a tape with the plastic tabs broken off.

To erase a recording
Make sure the microphone is not connected to this unit. Set the microphone volume and the echo level to OFF (see page 23).
1 Insert the tape to be erased into deck 2 and press **TAPE DECK 1/2** to display "TP 2".
2 Set the tape to the point where the erasure is to be started.
3 Press ● **REC/REC MUTE** to start the erasure.

DUBBING A TAPE MANUALLY



NOTE

- Set the tape to the point where recording will start.
- Note that recording will be done on one side of the tape only.

1 **Press TAPE.**

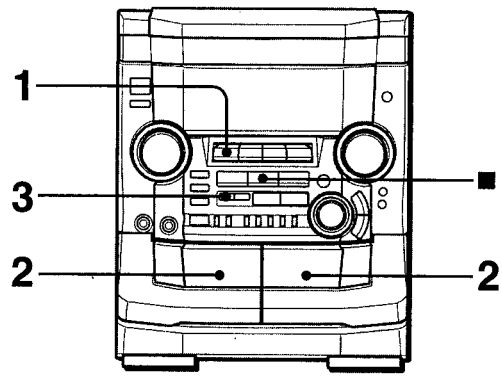
2 **Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert the tapes with the sides to be played back or recorded on facing out from the unit.

3 **Press TAPE to select deck 1.**
"TP 1" is displayed.

4 **Press ● REC/REC MUTE to start recording.**
Playing and recording start simultaneously.

To stop dubbing
Press ■.

DUBBING THE WHOLE TAPE



This function allows you to make exact copies of the original tape.

NOTE

- Dubbing does not start from a point halfway in the tape.
- Note that recording will be done on one side of the tape only.

1 **Press TAPE.**

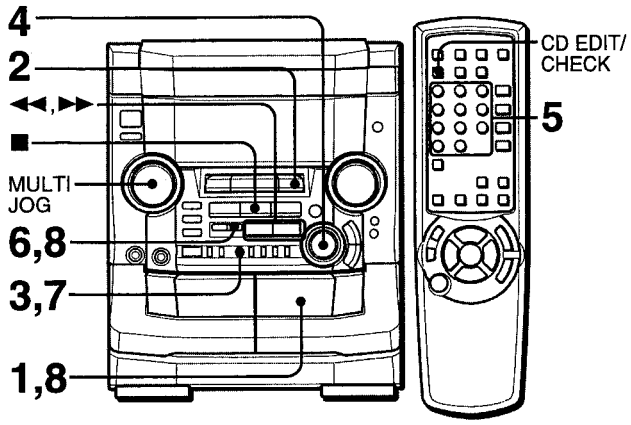
2 **Insert the original tape into deck 1 and the tape to be recorded on into deck 2.**
Insert each tape with the side to be played back or recorded on facing out from the unit.

3 **Press SYNC DUB to start recording.**

The tapes are rewound to the beginning of the front sides, and recording starts.

To stop dubbing
Press ■.

AI EDIT RECORDING



The AI edit recording function enables CD recording without worrying about tape length and track length. When a CD is inserted, the unit automatically calculates the total track length. If necessary, the order of tracks is rearranged so that no track is cut short.
(AI: Artificial Intelligence)

NOTE

AI edit recording will not start from a point halfway into the tape. The tape must be recorded from the beginning of either side.

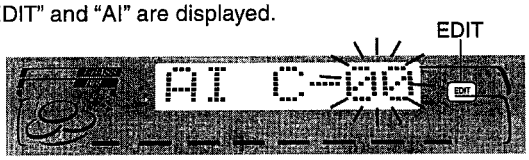
***1* Insert the tape into deck 2.**

Insert the tape with the side to be recorded on first facing out from the unit.

***2* Press CD and load the disc(s).**

***3* Press CD EDIT/CHECK once.**

"EDIT" and "AI" are displayed.

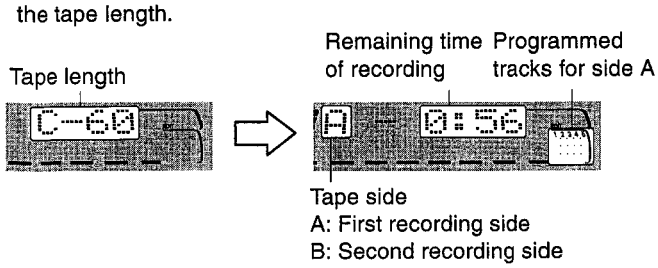


• When "PRGM" is displayed, press **CD EDIT/CHECK**.

***4* Press DISC DIRECT PLAY 1-3 to select a disc.**

***5* Press numbered buttons 0-9 on the remote control to designate the tape length.**

10 to 99 minutes can be specified.
Example: When using a 60-minute tape, press **6** and **0**.
In a few seconds, the tracks to be recorded on each side of the tape are determined.
• ◀◀, ▶▶ or **MULTI JOG** are also available to designate the tape length.



***6* Press ● REC/REC MUTE to start recording on the first side.**

The tape is rewound to the beginning of the first side, the lead segment is played through for 10 seconds, and recording starts. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 7.

***7* Press CD EDIT/CHECK to display the program for the second recording.**

"B" is displayed.

***8* Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording on the second side.**

To stop recording

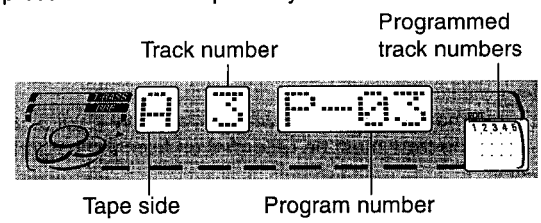
Press ■. Recording and CD play stop simultaneously.

To clear the edit program

Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

To check the order of the programmed track numbers

Before recording, press **CD EDIT/CHECK** to select side A or B, and press ◀◀ or ▶▶ repeatedly.



To add tracks from other discs to the edit program

If there is any time remaining on the tape after step 5, you can add tracks from other discs in the CD compartment.

1 Press **CD EDIT/CHECK** to select side A or B.
2 Press **DISC DIRECT PLAY 1-3** to select a disc.
3 Press numbered buttons on the remote control to select tracks. A track whose playing time is longer than the remaining time cannot be programmed.
4 Repeat steps 2 and 3 to add more tracks.

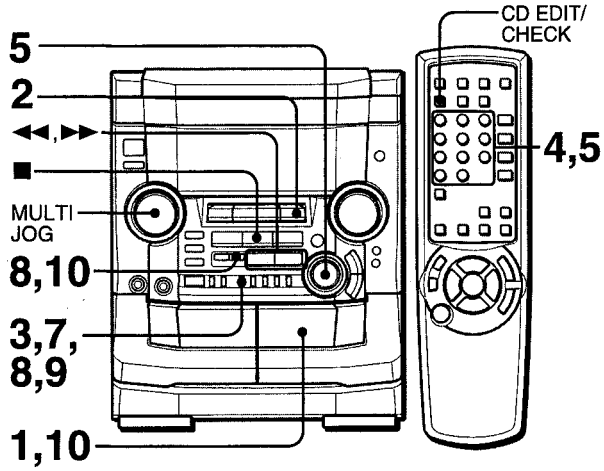
Time on cassette tapes and editing time

The actual cassette recording time is usually a little longer than the specified recording time printed on the label. This unit can program tracks to use the extra time. When the total recording time is a little longer than the tape's specified recording time after editing, the display shows the extra time (without a minus mark), instead of the time remaining on the tape (with the minus mark).

NOTE

The AI edit recording function cannot be used with discs containing 31 tracks or more. "TR OVER" is displayed if this is attempted.

PROGRAMMED EDIT RECORDING



In the programmed edit recording function the tracks can be programmed while checking the remaining time on each side of the tape.

NOTE

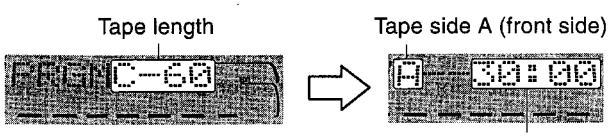
The programmed edit recording will not start from a point halfway in the tape. The tape must be recorded on from the beginning of either side.

1 **Insert the tape into deck 2.**
Insert the tape with the side to be recorded on first facing out from the unit.

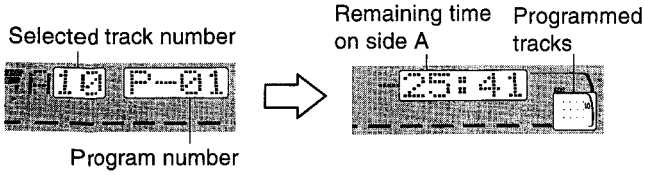
2 **Press CD and load the disc(s).**

3 **Press CD EDIT/CHECK twice.**
"EDIT" and "PRGM" are displayed.
• When "AI" is displayed, press **CD EDIT/CHECK** again.

4 **Press numbered buttons on the remote control to designate the tape length.**
10 to 99 minutes can be specified.
• The ◀◀, ▶▶ or **MULTI JOG** are also available to designate the tape length.

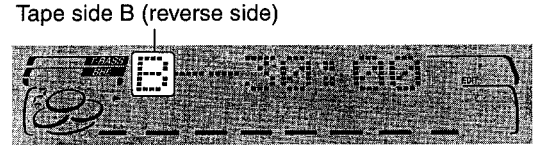


5 **Press DISC DIRECT PLAY 1-3 to select a disc. Then, press numbered buttons 0-9 and +10 on the remote control to program a track.**
Example: To select the 10th track of disc 2, press **DISC DIRECT PLAY 2**, then press **+10** and **0**.



6 **Repeat step 5 for the rest of the tracks for side A.**
A track whose playing time is longer than the remaining time cannot be programmed.

7 **Press CD EDIT/CHECK to select side B and program the tracks for side B.**
After confirming "B" on the display, repeat step 5.



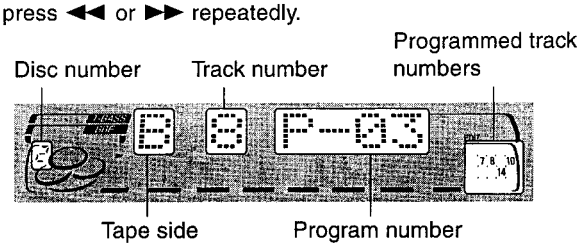
8 **Press CD EDIT/CHECK to select side A and press ● REC/REC MUTE to start recording.**
The tape is rewound to the beginning of the front side, the lead segment is played through for 10 seconds, and recording starts. When the last track programmed for side A is finished, deck 2 enters the recording stop mode. After entering the recording stop mode, go to step 9.

9 **Press CD EDIT/CHECK for recording of the second side.**
"B" is displayed.

10 **Turn over the tape in deck 2 and press ● REC/REC MUTE to start recording.**
Recording starts.

To stop recording
Press ■. Recording and CD play stop simultaneously.

To check the order of the programmed track numbers
Before recording, press **CD EDIT/CHECK** to select side A or B, and press ◀◀ or ▶▶ repeatedly.



To change the program of each side
Press **CD EDIT/CHECK** to select side A or B, and press ■ **CLEAR** to clear the program on the selected side. Then program tracks again.

To clear the edit program
Press ■ **CLEAR** twice so that "EDIT" disappears on the display.

NOTE

• Up to 30 tracks can be programmed from any of the inserted discs.
• "FULL" is displayed if you attempt to program more than 30 tracks.

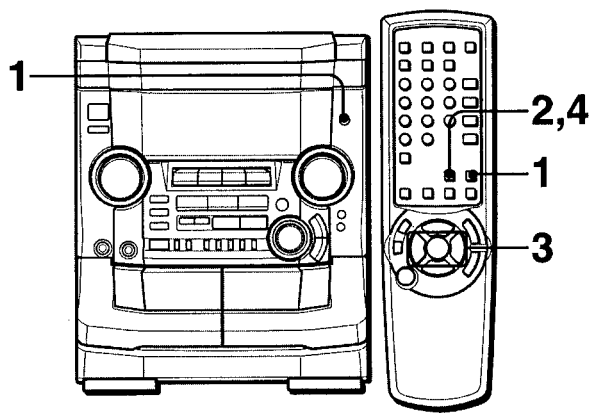
DOLBY PRO LOGIC

The DOLBY PRO LOGIC feature and the centre and rear speakers (standard) assure full-scale home theater sound. When playing back laser discs or video software that have been recorded in Dolby Surround, astonishingly realistic sound surrounds the listener to create a new level of audio/visual entertainment.
Independent control of the four sound channels allows the listener to enjoy the same type of sound reproduction experienced in movie theaters. Voices are reproduced in the front and centre sound field, while ambient sounds like cars and crowds are reproduced on all sides of the listener for an incredibly lifelike audio/video experience. Please read the following carefully to "tune" the system's output to match the characteristics of your listening space.

Check the following:

- Before using the DOLBY PRO LOGIC, adjust the proper balance of speaker sound levels.
- Make sure the supplied speakers are properly connected and positioned. (See page 4 and 5)
- Make sure the TV set and video unit are properly connected. (See page 5)
- Make sure the laser disc, video tape, etc., support DOLBY SURROUND.

ADJUSTING SPEAKER LEVEL BALANCE



The unit is equipped with a built-in test signal generator called a noise sequencer for easy balance adjustment of all 4 channels. The sequencer outputs a noise signal that "travels" from channel to channel, enabling the simple adjustment of sound level to achieve, at the listening position, the same apparent loudness from each channel.

Use the remote control.

1 Press DOLBY PRO LOGIC to select "NORMAL".

"NORMAL" is displayed.
If "PHANTOM" or "3 STEREO" is displayed, press **DOLBY PRO LOGIC** repeatedly until "NORMAL" is selected.

2 Press MANUAL SELECT and hold it down for about 4 seconds until "L" flashes.

A noise signal is sent to each channel in turn in the following sequence.

→ **L**: Left speaker → **CEN**: Centre speaker → **R**: Right speaker →
SUR: Surround speakers ←

3 Adjust the sound level of the centre and the surround speakers.

While "CEN" or "SUR" is displayed, press ◄◄ **DOWN** or ►► **UP** on the remote control to adjust the volume of the centre or each surround speaker to match the level of the front speakers.

To adjust the balance between the left and right front speakers, see page 9. At this time, the DOLBY PRO LOGIC mode should be canceled by pressing **DOLBY PRO LOGIC** until the "OFF" is displayed.

4 Press MANUAL SELECT again to stop the noise signal.

NOTE

When the sequencer outputs a noise signal, a clicking sound might be heard from the speakers due to the characteristics of the circuit. This is not malfunction.

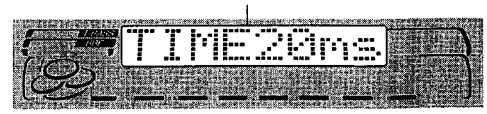
About the channels

The left and right front speakers create the stereo effect.
The centre speaker helps achieve precise sound positioning over a broad sound field.
The rear-mounted surround speakers enhance the "depth" of the sound field.

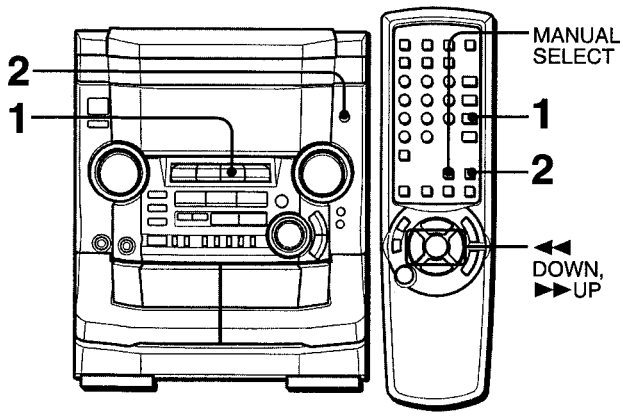
To change the delay time

The surround speakers reproduce sounds a split second after the front speakers. The delay is initially set to 20 ms (milliseconds). To change this standard delay time, press **MANUAL SELECT** on the remote control repeatedly until "TIME" is displayed. Then, press ◄◄ **DOWN** or ►► **UP**. Each time one of the buttons is pressed, the delay time changes as shown below.

15 mS ↔ 20 mS ↔ 30 mS



PLAY WITH DOLBY PRO LOGIC



***1* Press VIDEO/AUX and start playback of the video source.**
"VIDEO" is displayed.

***2* Press DOLBY PRO LOGIC.**
"NORMAL" is selected, and the playback sound has the DOLBY PRO LOGIC effect.

To cancel DOLBY PRO LOGIC mode
Press **DOLBY PRO LOGIC** repeatedly until "OFF" is displayed.

To change the sound levels during playback
After adjusting the balance with the noise sequencer, the sound levels of the centre or each surround speaker can be adjusted during playback of laser discs or video software.

1 Press **MANUAL SELECT** on the remote control repeatedly to select "CEN" (centre speaker) or "SUR" (surround speakers).
2 While the "CEN" or "SUR" is displayed, press ◄◄ **DOWN** or ►► **UP** on the remote control to adjust the volume.

ADDITIONAL DOLBY PRO LOGIC MODES

In addition to the NORMAL mode, this unit is also equipped with the PHANTOM and the 3 STEREO modes.
PHANTOM mode: Use this mode when no centre speaker is connected. The centre channel signals are output through the left and right speakers.
3 STEREO mode: Use this mode when no surround speakers are connected. This mode reproduces rear sounds through the front speakers.

To select PHANTOM or 3 STEREO
Press **DOLBY PRO LOGIC** repeatedly until the desired DOLBY PRO LOGIC mode is displayed. The DOLBY PRO LOGIC mode is displayed cyclically as follows.

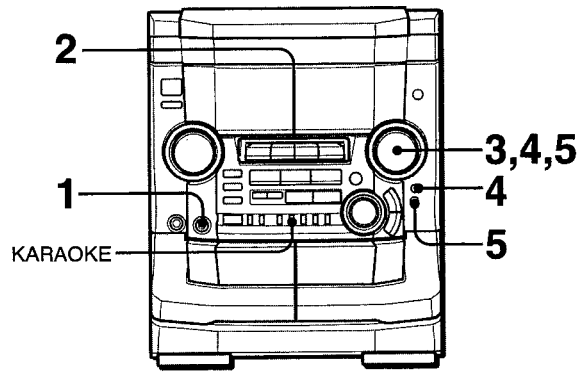
NORMAL → PHANTOM → 3 STEREO → OFF (cancel) → NORMAL

To adjust the balance of connected speaker sound levels
Carry out steps 2 to 4 of "ADJUSTING SPEAKER LEVEL BALANCE".

NOTE

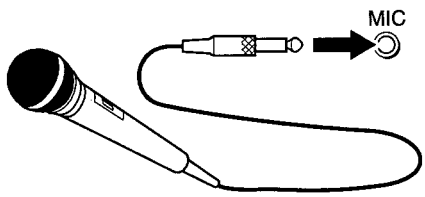
- Depending on the sound source and/or listening conditions, a surround effect may not be obtained even when the DOLBY PRO LOGIC is on.
- The full DOLBY PRO LOGIC effect cannot be obtained when using software without DOLBY SURROUND mark.
- The DOLBY PRO LOGIC is automatically canceled when:
  - the ECHO level is changed.
  - the BBE is turned on.
  - the headphones are plugged in.
  - the Karaoke function is turned on.
- Set the microphone volume to OFF while the DOLBY PRO LOGIC is on. Otherwise, the DOLBY PRO LOGIC sound can not be reproduced correctly.

MICROPHONE MIXING



A microphone (not supplied) can be connected to this unit, allowing you to sing along to music sources.
Use a microphone with a standard plug (ø6.3 mm, 1/4 inch).

1 Connect your microphone to the MIC jack.



2 Press one of the function buttons to select the source to be mixed, and play the source.

3 Adjust the volume and tone of the source.

4 Press MIC and turn VOLUME within 4 seconds to adjust the microphone volume.

The microphone volume can be selected from 1 to MAX (7) or OFF (cancel).

5 Press ECHO and turn VOLUME within 4 seconds to adjust the echo level.

The echo level can be selected from 1 to MAX (7) or OFF (cancel).

To change the delay time of echo
Hold down **ECHO** while the echo is on.
"L" (Long) and "M" (Middle) are displayed alternately. At the desired position, release the button.

To record microphone sound mixed with source sound
Follow the procedure for recording from the sound source (see page 17).
SYNC DUB cannot be used for mixing recording.

When not using the microphones
Set the microphone volume and echo level to OFF and remove the microphones from **MIC** jack.

NOTE

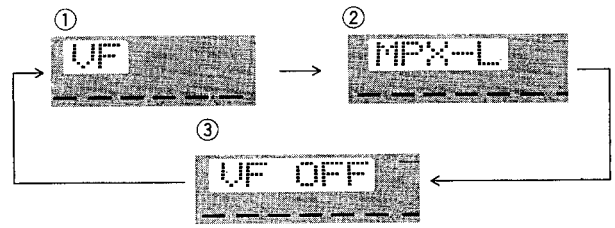
- When the ECHO level is changed, the DOLBY PRO LOGIC is automatically canceled.
- If a microphone is held too near the speakers, a howling sound may be produced. In this case, hold the microphone away from the speakers, or decrease the microphone volume.
- If sound through the microphone is extremely loud, it may be distorted. In this case, decrease the microphone volume.
- When the function is changed, the microphone volume and the echo volume are set to off.

Recommended microphones
The use of unidirectional type microphones is recommended to prevent howling. Contact your local Aiwa dealer for details.

VOCAL FADER/MULTIPLEX FUNCTIONS

This unit can use discs or tapes as Karaoke sources.
Use the vocal fader function for ordinary discs or tapes.
Use the multiplex function for multi audio discs or tapes.

Press KARAOKE repeatedly to select the vocal fader or multiplex function.
Each time **KARAOKE** is pressed, one of these functions is selected cyclically.



① Vocal Fader
The singer's voice becomes softer than the accompaniment.

② Multiplex
The sound on the left channel is heard from both speakers and the sound on the right channel is muted.
To hear the sound on the right channel, see below.

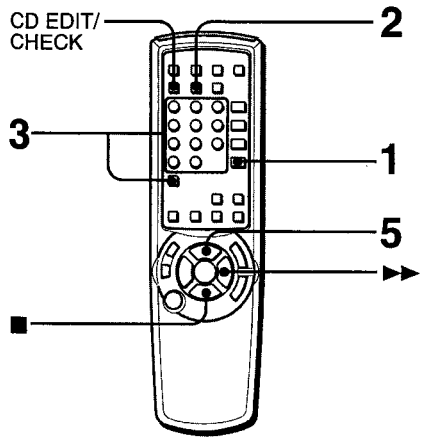
③ Cancel

To change the audible channel in Multiplex function
When Multiplex is selected, "MPX -L" is displayed for 3 seconds and changes to the selected function name. After the selected function name is displayed, keep pressing **KARAOKE** until "MPX-R" is displayed.
To return to the initial setting, select MPX-L.
When the power is turned off, MPX-L is restored.

NOTE

- The Karaoke functions may not operate correctly with the following kinds of CDs or tapes.
  - Those with monaural sound
  - Those recorded with strong echoes
  - Those with the vocal part recorded on the right or left side of the sound width
- While the Karaoke function is on, the sound is output as monaural.
- When the function is changed, the Karaoke function is cancelled.

KARAOKE PROGRAM



Before or during CD play, you can reserve up to 15 tracks to be played after the current track. Each reservation is cleared when it finishes playing.

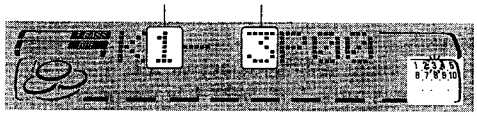
Use the remote control.

***1* Press CD and load the discs.**

***2* Press PRGM <u>once</u>.**

***3* Press DISC DIRECT PLAY, then press numbered buttons 1-3 within 3 seconds to select a disc. Then, press numbered buttons 0-9 and + 10 to program a track.**

Reserved disc number Reserved track number

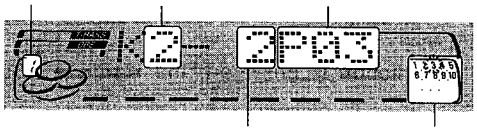


***4* Repeat step 3 to reserve other tracks.**

***5* Press ◄► to start play.**

After a track is played, it is cleared from the program.

Currently playing disc Disc number of the last reservation Number of remaining reserved tracks



Track number of the last reservation Currently playing track number flashes.

To add a reservation during play

Repeat step 3.

To check the reserved tracks

Press **CD EDIT/CHECK** repeatedly. Each time it is pressed, the disc number and track number are displayed in the reserved order.

To stop play

Press ■.

When ◄► is pressed, the play starts from the last track again.

To skip a current track

Press ►►. The skipped track is cleared from the program.

To clear all the reservations

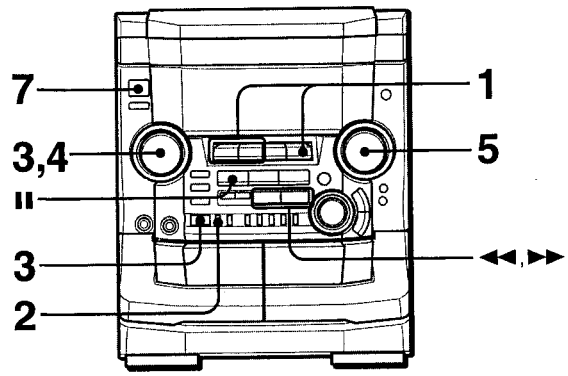
Press ►► repeatedly until "K - P00" is displayed.

Press it once more to cancel the Karaoke programs. The display returns to that of CD play.

NOTE

- If the reserved track number does not exist on the selected disc, the unit stops playing and the display flashes. In this case, press ►► to skip the error track. Then press ◄► to start play with the next reserved track.
- When **PRGM** is pressed repeatedly in step 2, "PRG" is displayed and the unit enters CD program play mode (page 15). To cancel program play, press ■ **CLEAR**.

SETTING THE TIMER

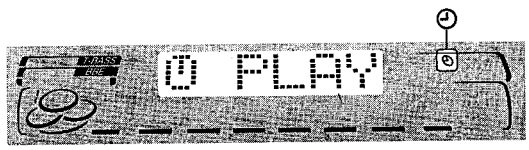


The unit can be turned on at a specified time every day with the built-in timer.

Preparation
Make sure the clock is set correctly.

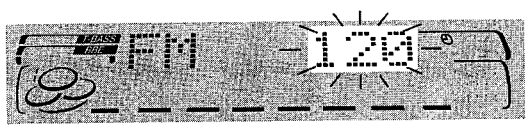
1 **Press one of the function buttons to select a source.**

2 **Press TIMER repeatedly until ⏲ appears on the display.**
Time and audio source name flash alternately.



3 **<u>Within 6 seconds</u>, turn MULTI JOG to designate the timer-on time, then press ENTER or II.**
Turning **MULTI JOG** changes both the hour and the minute. ◄◄ or ►► is also available in place of **MULTI JOG**. Holding these buttons down will vary the time rapidly.

4 **<u>Within 4 seconds</u>, turn MULTI JOG to select the duration for the timer-activated period.**
The duration can be set between 5 and 240 minutes in 5-minute steps.
◄◄ or ►► is also available in place of **MULTI JOG**.



The duration will be automatically set after 4 seconds. It will also be set if **ENTER** or **II** is pressed within 4 seconds after step 4.

5 **Adjust the volume.**
The source sound will play at the volume level set in this step when the power is turned on by the timer.
If the volume level is set to 21 or higher, however, it will automatically be set to 20 when the power is turned on.

6 **Prepare the source.**
To listen to a CD, load the disc to be played first on tray 1.
To listen to a tape, insert the tape into deck 1 or 2.
To listen to the radio, select the band and tune in to a station.

7 **Press POWER to turn off the power.**
When the timer-on time is reached, the unit turns on and begins play with the selected source.

NOTE
You can change the source that was selected in step 1 by pressing one of the function buttons before pressing **ENTER** or **II** in step 3.

To check the timer setting
Press **TIMER**.
The timer-on time, the selected source, and the duration for the timer-activated period will be displayed for 4 seconds.

To change any of the previous setting
Carry out from step 1.
However, if you do not change the timer-on time, in step 3 just press **ENTER** twice and continue from step 4.

To cancel the timer standby mode temporarily
Press **TIMER** repeatedly so that ⏲ disappears.
To restore the timer standby mode, press again to display ⏲.

Using the unit while the timer is set
You can use the unit normally after setting the timer.
Before turning off the power, carry out step 5 and 6.

NOTE
- Timer playback and timer recording will not begin unless the power is turned off.
- Connected equipment cannot be turned on and off by the built-in timer of this unit. Use an external timer.

TIMER RECORDING

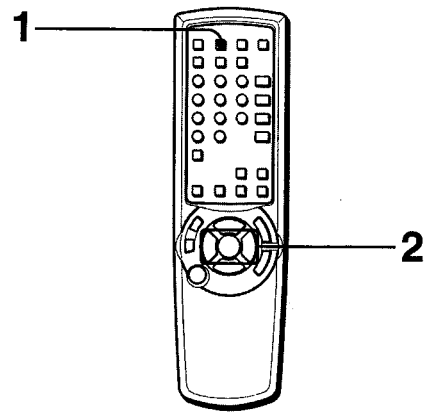
Timer recording is applicable for TUNER and VIDEO/AUX (with an external timer) sources only.

Press either **TUNER BAND** or **VIDEO/AUX** to select a source, then **press TIMER repeatedly until ⏲ flashes on the display.** Within 6 seconds, carry out the steps of "SETTING THE TIMER" from step 3 and insert the tape to be recorded on into deck 2 after step 6.

NOTE

- If the timer recording is done with the economizing mode (page 7) set to "ECO ON" or "ECO AUTO" and the power turns off, the dimmer mode will be set to dimmest and the volume level will be 0 (minimum level) the next time the power is turned on.
- You cannot use the timer function to record from a CD or tape.
- You can check the timer setting by pressing **TIMER** even while the power is off. In this case, if you press **ENTER** or **II** within 4 seconds after pressing **TIMER**, you can enter the timer setting mode and change the previous setting.

SETTING THE SLEEP TIMER



The unit can be turned off automatically at a specified time.

Use the remote control.

***1* Press SLEEP.**

***2* Within 4 seconds, press ◀◀ DOWN or ▶▶ UP to specify the time until the power is turned off.**

The time changes between 5 and 240 minutes in 5-minute steps.

MULTI JOG is also available in place of ◀◀ or ▶▶.

Specified time

While the timer is in operation, the display indication is dimmer than usual.

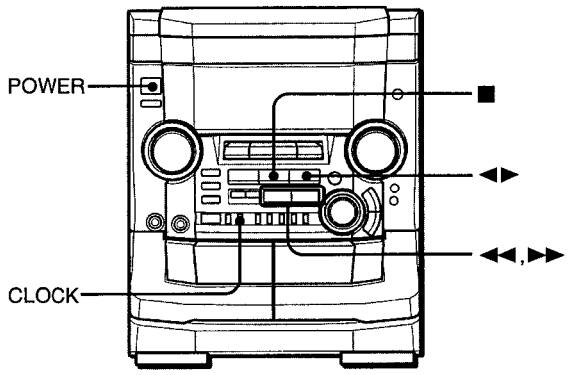
To check the time remaining until the power is turned off

Press **SLEEP** once. The remaining time is displayed for 4 seconds.

To cancel the sleep timer

Press **SLEEP** twice so that "SLEEP oFF" appears on the display.

DEMO (Demonstration)



You can enjoy two kinds of DEMO modes on this unit.
One is *demo*, the other one is *game demo*.
In the demo mode, colorful illumination demonstrates in the display.
In the game demo mode, you can play a game.
To switch the two modes to each other, press **POWER** while pressing ◄► when the power is off.
To activate the demo or the game demo, press ◄► when the power is off.
To deactivate the demo or the game demo, press **CLOCK**.
See below about how to play the game demo.

To play the game demo

***1* To start the game demo, press ◄► when the power is off.**
Three numbers on the display start to run.

***2* Press ■ once.**
The number on the left side stops.

***3* Press ■ twice to stop the remaining two numbers.**
Scoring:
20 points are given to start the game.
If all the numbers are equal, 50 points are added to the score.
If not equal, one point is subtracted.
If the gained points reach 9999, you win.
If the gained points fall to 0, you lose.

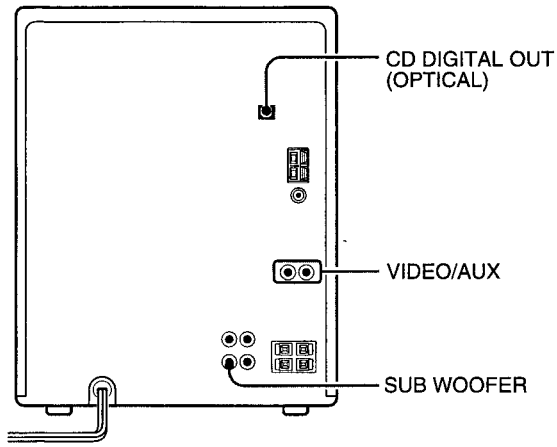
To reset the game demo
Press **CLOCK**, then press ◄►.

To change the probability of equalizing the three numbers
Press ◄◄ or ►► repeatedly to select one of the three probability levels when playing the game demo. The tray number indicator in the display changes between 1 and 3. As the tray number increases from 1 to 3, the higher the probability of equalizing.

NOTE

- While playing the game demo, ■, ◄◄, ►► and ◄► are available only for the game demo. Turn the power on to use these buttons for the functions such as CD playing, etc.
- During the game demo, some indicators unrelated to the actual operation light up on the display.

CONNECTING OPTIONAL EQUIPMENT



Refer to the operating instructions of the connected equipment for details.

- The connecting cords are not supplied. Obtain the necessary connecting cords.
- Consult your local Aiwa dealer for optional equipment.

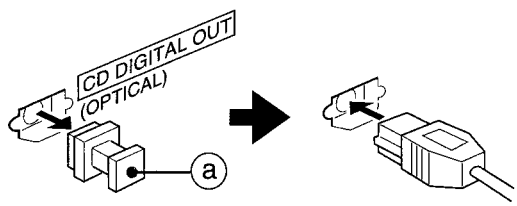
VIDEO/AUX JACKS

This unit can input analog sound signals through these jacks. Use a cable with RCA phono plugs to connect audio equipment (turntables, LD players, MD players, VCRs, TV, etc.).
Connect the red plug to the **VIDEO/AUX R** jack, and the white plug to the **VIDEO/AUX L** jack.

When connecting a turntable
Use an Aiwa turntable equipped with a built-in equalizer amplifier.

CD DIGITAL OUT (OPTICAL) JACK

This unit can output CD digital sound signals through this jack. Use an optical cable to connect digital audio equipment (DAT deck, MD recorder, etc.).
Remove the dust cap ⓐ from the **CD DIGITAL OUT (OPTICAL)** jack. Then, connect an optical cable plug to the **CD DIGITAL OUT (OPTICAL)** jack.

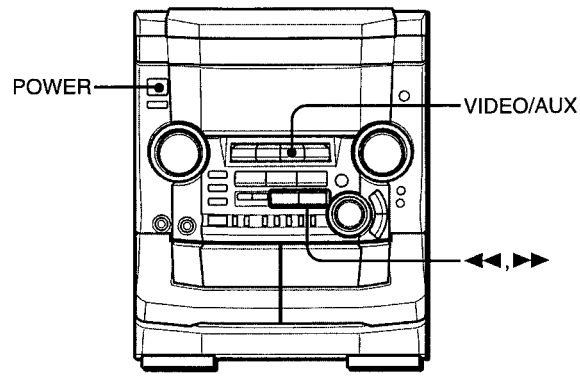


When the CD DIGITAL OUT (OPTICAL) jack is not being used
Attach the supplied dust cap.

SUB WOOFER JACK

Connect an optional powered sub woofer with built-in-amplifier to the jack.

LISTENING TO EXTERNAL SOURCES



To play equipment connected to the VIDEO/AUX jacks proceed as follows.

1 Press VIDEO/AUX.
"VIDEO" appears on the display.

2 Play the connected equipment.

To change a source name in the display
When **VIDEO/AUX** is pressed, "VIDEO" is displayed initially. It can be changed to "VIDEO", "AUX" or "TV".
With the power on, press **POWER** while pressing **VIDEO/AUX**. Repeat the procedure to select one of the names.

To adjust the sound level of the external source
When the sound level of the external source is much higher or much lower than that of other function sources, adjust it as follows.

1 Press **VIDEO/AUX** and play the equipment.
2 Press ◄◄ or ►► so that the sound level becomes the same as that of other function sources.

NOTE
During recording, the sound level can not be adjusted.

CARE AND MAINTENANCE

Occasional care and maintenance of the unit and the software are needed to optimize the performance of your unit.

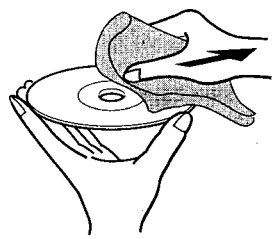
To clean the cabinet
Use a soft and dry cloth.
If the surfaces are extremely dirty, use a soft cloth lightly moistened with mild detergent solution. Do not use strong solvents, such as alcohol, benzine or thinner as these could damage the finish of the unit.

To clean the tape heads
When the tape heads are dirty;
- high frequency sound is not emitted
- the sound is not adequately high
- the sound is off-balance
- the tape cannot be erased
- the tape cannot be recorded on

After every 10 hours of use, clean the tape heads with a head cleaning cassette.
Refer to the instructions of the cleaning cassette for details.

To demagnetize the tape heads
The tape heads may become magnetized after long-term use. This may narrow the output range of recorded tapes and increase noise.
After every 20 to 30 hours of use, demagnetize the tape heads with a separately sold demagnetizing cassette.
Refer to the instructions of the demagnetizing cassette for details.

Care of discs
- When a disc becomes dirty, wipe the disc from the center out with a cleaning cloth.



- After playing a disc, store the disc in its case. Do not leave the disc in places that are hot or humid.

Care of tapes
- Store tapes in their cases after use.
- Do not leave tapes near magnets, motors, television sets, or any source of magnetism. This will downgrade the sound quality and cause noise.
- Do not expose tapes to direct sunlight, or leave them in a car parked in direct sunlight.

TROUBLESHOOTING GUIDE

If the unit fails to perform as described in these Operating Instructions, check the following guide.

GENERAL

There is no sound.
- Is the AC cord connected properly?
- Is there a bad connection? (→ page 4)
- There may be a short circuit in the speaker terminals.
  → Disconnect the AC cord, then correct the speaker connections.
- Was an incorrect function button pressed?

Sound is emitted from one speaker only.
- Is the other speaker disconnected?

The output sound is not stereo.
- Is the Karaoke function turned on? (→ page 23)

An erroneous display or a malfunction occurs.
→ Reset the unit as stated below.

The unit blacks out when the power is turned off.
- Is the power economizing mode set to "ECO ON" or "ECO AUTO"? (→ page 7)

The power is not turned on.
→ Disconnect the AC cord, and connect it again in a few seconds.

TUNER SECTION

There is constant, wave-like static.
- Is the antenna connected properly? (→ page 5)
- Is the signal weak?
  → Connect an outdoor antenna.

The reception contains noise interferences or the sound is distorted.
- Is the system picking up external noise or multipath distortion?
  → Change the orientation of the antenna.
  → Move the unit away from other electrical appliances.

CASSETTE DECK SECTION

The tape does not run.
- Is deck 2 in pause mode? (→ page 16)

The sound is off-balance or not adequately high.
- Is the playback head dirty? (→ page 29)

Recording is not possible.
- Is the erasure prevention tab on the tape broken off? (→ page 17)
- Is the recording head dirty? (→ page 29)

Erasure is not possible.
- Is the erasure head dirty? (→ page 29)
- Is a metal tape being used?

High frequency sound is not emitted.
- Is the recording/playback head dirty? (→ page 29)

Cassette holder does not open.
→ Connect the AC cord and press **POWER** to turn the unit on. Then press ▲ **PUSH EJECT** to open the cassette holder.

CD PLAYER SECTION

The CD player does not play.
- Is the disc correctly placed? (→ page 14)
- Is the disc dirty? (→ page 29)
- Is the lens affected by condensation?
  → Wait approximately one hour and try again.

To reset
If an unusual condition occurs in the display window or the cassette decks, reset the unit as follows.
1 Press **POWER** to turn off the power.
2 Press **POWER** to turn the power back on while pressing ■ **CLEAR**. Everything stored in memory after purchase is canceled.

If the power cannot be turned off in step 1 because of a malfunction, reset by disconnecting the AC cord, and connect it again. Then carry out step 2.

SPECIFICATIONS

Main unit CX-NDP55

FM tuner section

Tuning range	87.5 MHz to 108 MHz
Usable sensivity (IHF)	16.8 dBf
Antenna terminals	75 ohms (unbalanced)

MW tuner section

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

LW tuner section

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	**Front** Rated: 80 W + 80 W (6 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 100 W + 100 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 165 W + 165 W **Rear (Surround)** Rated: 20 W + 20 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 25 W + 25 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 50 W + 50 W **Centre** Rated: 20 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 25 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 70 W
Total harmonic distortion	0.1 % (40 W, 1 kHz, 6 ohms, DIN AUDIO/Front)
Inputs	VIDEO/AUX: 300 mV (adjustable) MIC: 1.0 mV (10 K ohms)
Outputs	SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms CENTER SPEAKER: accept speakers of 8 ohms or more SUB WOOFER: 1.9 V PHONES (stereo jack): accepts headphones of 32 ohms or more

Cassette deck section

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1: Playback head × 1 Deck 2: Recording/playback head × 1, erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

General

Power requirements	230 V AC, 50 Hz
Power consumption	200 W
Power consumption in standby mode	If the power-economizing mode is ECO OFF: 20 W If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W
Dimensions (W × H × D)	260 × 326 × 395 mm
Weight	10.5 kg

Speaker system SX-NDP54

Speaker system	2 way, bass reflex (magnetic shielded type)
Speaker units	Woofer: 160 mm cone type Tweeter: 60 mm cone type
Impedance	6 ohms
Sensitivity	87 dB/W/m
Dimensions (W × H × D)	240 × 324 × 245 mm
Weight	4.4 kg

Specifications and external appearance are subject to change without notice.

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Please check the laws on copyright relating to recordings from discs, radio or external tape for the country in which the machine is being used.

OBSERVERA

Så länge som apparaten är ansluten till nätet flyter en svag ström genom densamma, även då den är avstängd. Om man under en längre tid ej har för avsikt att använda den, drag då ur nätkabeln.

BEMÆRK

Apparatet er stadig forbundet med lysnettet, så længe stikket er tilsluttet til stikkontakten, selv om afbryteren er slået fra. Hvis apparatet ikke bruges i længere tid, skal netledningen trækkes ud.

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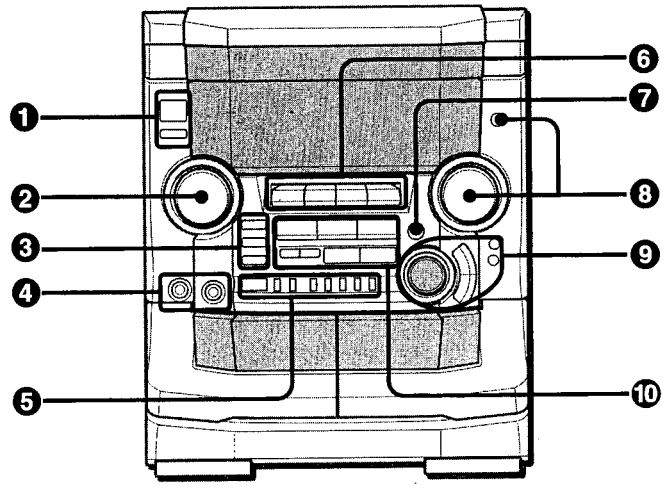

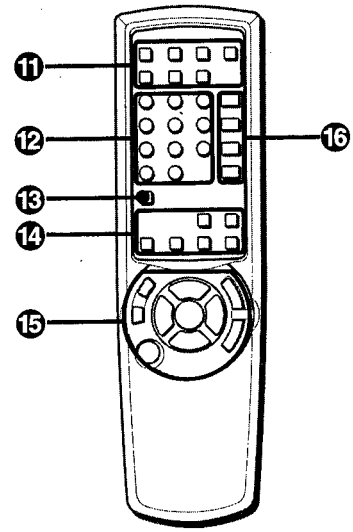

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